

WE CLAIM:

1. A machine for cutting financial cards to a non-conventional configuration, said machine comprising:

(a) a card supply mechanism for supplying a plurality of financial cards individually to a cutting station;

(b) a cutting device at said cutting station for cutting said financial cards to said non-conventional configuration; and

(c) a card delivery mechanism for transporting said cut financial cards away from said cutting station.

2. The machine of claim 1, wherein said card supply mechanism includes a first conveyor that has a plurality of spaced nests for holding said financial cards during transport to said cutting station, each of said spaced nests being adapted to hold one of said financial cards therein.

3. The machine of claim 2, wherein said first conveyor comprises a pair of transversely spaced endless belts and each of said nests comprises a pair of spaced parallel sidepieces connected at opposite ends to said belts.

4. The machine of claim 4, wherein said first conveyor extends through said cutting station and each said financial card is cut while held within one of said nests on said first conveyor at the cutting station.

5. The machine of claim 2, wherein said card supply mechanism further includes a magazine for holding said plurality of cards in stacked relationship and a mechanism for individually removing said cards from said magazine and placing them in one of the nests on said first conveyor.

6. The machine of claim 5, wherein said mechanism for individually removing said cards from said magazine comprises a shuttle device having a fork adapted to grasp the edge of each card, remove said card from the magazine, and place said card in one of the nests on said first conveyor.

7. The machine of claim 2, wherein said card supply mechanism further includes a walking beam loader and a card supply pick and place mechanism having suction cups for individually removing said cards from the walking beam loader and placing them in one of the nests on said first conveyor.

8. The machine of claim 1, wherein said cutting device comprises a punch, a die block and an actuator for pressing said punch into said die block.

9. The machine of claim 2, wherein said card delivery mechanism comprises a second conveyor for transporting said cut financial cards away from said cutting station to a delivery station.

10. The machine of claim 9, wherein said first conveyor has upper and lower portions and said second conveyor extends transversely of said first conveyor between the upper and lower portions of said first conveyor.

11. The machine of claim 10, wherein said second conveyor comprises a pair of transversely spaced endless belts and a plurality of spaced nests connected to said spaced endless belts, each of said spaced nests being adapted to hold one of said cut financial cards therein.

12. The machine of claim 11, wherein each of said nests of the second conveyor comprises a pair of spaced parallel sidepieces connected at opposite ends to said endless belts of the second conveyor.

13. The machine of claim 11, wherein said card delivery mechanism further comprises a first card delivery pick and place mechanism for engaging an underside of each card at the cutting station and pulling the cut card down into one of said spaced nests on said second conveyor.

14. The machine of claim 13, wherein said card delivery mechanism further comprises a second card delivery pick and place mechanism at said delivery station for removing cut cards from the nests on the second conveyor and placing them in a container.

15. The machine of claim 9, wherein said second conveyor is timed to operate in synchronism with the cutting device to coordinate receipt and transport of the cut cards with the speed at which said cards are cut.

16. The machine of claim 15, wherein said cut cards drop onto said second conveyor after being cut at the cutting station.

17. The machine of claim 16, wherein said second conveyor is timed so that the cut cards will overlap each other as they fall onto said second conveyor.

18. A machine for cutting financial cards to a non-conventional configuration, said machine comprising:

(a) a first conveyor for supplying a plurality of financial cards individually to a cutting station, said first conveyor comprising a pair of transversely spaced endless belts and a plurality of spaced nests connected to said belts for holding said financial cards during transport to a cutting station, each of said spaced nests being adapted to hold one of said financial cards therein, said first conveyor extends through said cutting station and each said financial card is cut while held within one of said nests on said first conveyor at the cutting station; and

(b) a cutting device at said cutting station for cutting said financial cards to said non-conventional configuration.

19. The machine of claim 18, wherein said cutting device includes a punch, a die block having a cavity therein and an actuator for pressing said punch into said cavity in said die block.

20. The machine of claim 19, which further comprises a second conveyor for transporting said cut financial cards away from said cutting station, said second conveyor extending transversely of said first conveyor between upper and lower portions of said first conveyor.

21. The machine of claim 21, wherein said die block is located under an upper portion of said first conveyor and said cut card may pass through said cavity in said die block onto said second conveyor.

22. A method for cutting financial cards to a non-conventional configuration, said method comprising:

- (a) supplying a plurality of financial cards individually to a cutting station;
- (b) cutting said financial cards to said non-conventional configuration at said cutting station; and
- (c) transporting said cut financial cards away from said cutting station to a delivery station.

23. The method of claim 22, wherein said step of supplying said financial cards to a cutting station includes placing each card in a nest on a first conveyor that has a plurality of spaced nests for holding said financial cards during transport to said cutting station.

24. The method of claim 22, wherein said step of supplying said financial cards to a cutting station further comprises determining whether each card is properly placed in each nest on said first conveyor.

25. The method of claim 24, wherein said step of determining whether each card is properly placed in each nest includes using a magnetic stripe reader to determine whether the side of the card containing a magnetic stripe has been placed properly facing said magnetic stripe reader.

26. The method of claim 23, which further comprises properly locating each of said nests on said first conveyor at said cutting station to insure precision line-up of the card in said nest with a cutting device at said cutting station.

27. The method of claim 26, wherein said step of properly locating each of said nests at said cutting station includes providing at least two pilot holes in each of said nests for engagement by posts projecting from one of a pair of die sections of said cutting device.

28. The method of claim 26, wherein said step of properly locating each of said nests on said first conveyor at said cutting station includes determining the proper location of diagonally opposite comers of each of said nests at said cutting station.

29. The method of claim 22, wherein said step of cutting said cards to a non conventional configuration is selected from a group consisting of at least one of cutting said cards to a square shape, cutting said cards to an asymmetrical shape, and cutting said cards to a smaller rectangular shape.

30. The method of claim 22, wherein said financial card is selected from a group consisting of at least one of a conventional credit card, a debit card and a special value card.

31. The method of claim 22, wherein said cutting step further comprises punching a hole in each said card at said cutting station.